

Integrated Health and Safety Plan

Avery Landing Site
Avery, Idaho

for

**U.S. Environmental Protection Agency on Behalf
of Potlatch Land and Lumber, LLC**

April 12, 2013

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1.0 INTRODUCTION

This Integrated Health and Safety Plan (HASP) is to be used in conjunction with the company-specific Health and Safety Plans contained in Attachment D.1, D.2 and D.3 for the Avery Landing Site (Site) removal action. Together, the written safety programs and this HASP constitute the health and safety plan for this Site.

In accordance with the recommended removal action alternative presented in the EE/CA dated December 2010 (E&E, 2010) and as set forth and described in the Action Memorandum for the Avery Landing Site (EPA, 2011), and agreements as otherwise required by with United States Environmental Protection Agency (EPA), Potlatch Land and Lumber, LLC. (Potlatch) will perform removal actions at the Avery Landing Site (Site) followed by Site-wide post removal action groundwater monitoring. During implementation of the removal action, all Site personnel are required to comply with the items specified under Occupational Safety and Health Administration (OSHA) Title 29 of the Code of Federal Regulations (CFR), Part 1910.120 (b), "Final Rule." and 29 CFR 1910.1001.

To comply with OSHA and Federal regulations, company-specific HASPs have been prepared by Potlatch and their contractors, GeoEngineers, Inc. (GeoEngineers; Environmental Engineer) and Pacific Pile and Marine (PPM; Cleanup Contractor), to identify potential Site hazards and emergency response procedures for the removal action. At a minimum, the attached company-specific Health and Safety Plans address the potential site-specific hazards presented in this document.

During the removal action, Potlatch, GeoEngineers, and PPM will operate under their respective company HASP (see Attachments D. through D.3). In addition, all Site visitors will be required to check in at the construction trailer. While on Site, all visitors will be expected to comply with relevant OSHA and federal requirements and will be expected to provide their own personal protective equipment (PPE) as appropriate. Visitors who have not met OSHA and federal requirements for training, medical surveillance, and PPE will not be permitted to enter areas where exposure to hazardous materials is possible. Furthermore, subcontractors will also be required to follow and adhere to relevant OSHA and federal requirements. Subcontractors must supply their own PPE, training, medical monitoring, and any other items necessary for compliance with OSHA and other pertinent regulations.

Site personnel will be encouraged to report any conditions or practices that they consider detrimental to their health or safety or that they believe violate applicable health and safety standards. Personnel who believe that an imminent danger threatens human health or the environment are obligated to remove themselves from the area or the hazardous condition and warn all other personnel of the source of the danger. The hazardous condition or matter will be brought to the immediate attention of the other Site personnel for resolution. All Site personnel shall participate in daily tailgate safety meeting to be conducted prior to the start of work.

2.0 BACKGROUND INFORMATION

2.1. SITE LOCATION

The Site is located in the St. Joe River Valley of the Bitterroot Mountains in northern Idaho, approximately one mile west of the town of Avery in Shoshone County. The St. Joe River borders the Site to the south and Highway 50 borders the Site to the north.

- The Site is located in the NW quarter of Section 16, Township 45 North, Range 5 East, Willamette Meridian.
- Latitude 47° 13' 57" North and Longitude W 115° 43' 40" West.

2.2. SITE HISTORY

Detailed information regarding Site and operational history, previous investigations and regulatory history and cleanup actions are presented in EPA's EE/CA (E&E, 2010) and/or Supplemental Investigation Report (GeoEngineers, 2011) and are summarized in the Avery Landing Removal Action Work Plan (Work Plan; GeoEngineers, 2013).

3.0 DESCRIPTION OF WORK TO BE PERFORMED

In general, EPA's selected removal action requires the excavation of contaminated soil. Residual contamination remaining at the Site is expected to attenuate by way of natural processes and the progress of the attenuation will be monitored over-time, following the completion of the removal action.

The objectives of the removal action are to:

- Remove the remaining components of the product containment, collection, and extraction systems that were installed as part of the 1994 and 2000 removal actions;
- Remove soil exceeding field screening methods within the upland and river bank areas;
- Remove, treat, and/or manage petroleum product that is present as light Non-Aqueous Phase Liquids (LNAPL) on groundwater within the excavations;
- Dispose of waste streams in accordance with CERCLA's off-site rule requirements; and
- Restore portions of the Site affected by the removal action including river bank reconstruction, backfilling, compaction, grading and re-vegetation.

The conceptual design and preliminary approach for the removal action that will be performed by Potlatch is summarized in the Avery Landing Removal Action Work Plan (Work Plan; GeoEngineers, 2013).

4.0 POTENTIAL SITE HAZARDS

This section presents hazards that may be potentially present at the Site.

4.1. PHYSICAL HAZARDS

- Drill rigs (Monitoring Well Installation)
- Backhoe
- Trackhoe
- Off-Road dump truck
- Front End Loader
- Excavations/trenching (1:1 slopes for Type B soil)
- Shored/braced excavation if greater than 4 feet of depth
- Overhead hazards/power lines
- Tripping/puncture hazards (debris on-site, steep slopes or pits)
- Unusual traffic hazard – Street traffic
- Heat/Cold, Humidity
- Utilities/utility locate

4.2. BIOLOGICAL HAZARDS

- Rodents and Wildlife.
- Poisonous Snakes
- Insects, Bees and Spiders

4.3. CHEMICAL HAZARDS

The following are the chemical hazards identified as present or potentially present at the Site.

Compound/ Description	Exposure Limits/IDLH	Exposure Routes	Symptoms/Health Effects
Diesel Fuel – liquid with a characteristic odor	None established by OSHA, but ACGIH has adopted 100 mg/m ³ for a TWA (as total hydrocarbons)	Ingestion, inhalation, skin absorption, skin and eye contact	Irritated eyes, skin, and mucous membrane; fatigue; blurred vision; dizziness; slurred speech; confusion; convulsions; headache; dermatitis
Polycyclic aromatic hydrocarbons (PAH) as coal tar pitch volatiles	PEL 0.2 mg/m ³ TLV 0.2 mg/m ³ REL 0.1 mg/m ³ IDLH 80 mg/m ³	Inhalation, ingestion, skin and/or eye contact	Dermatitis, bronchitis, potential carcinogen
PCBs (as Aroclor 1254)—colorless to pale-yellow viscous liquid with a mild, hydrocarbon odor	PEL 0.5 mg/m ³ TLV 0.5 mg/m ³ REL 0.001 mg/m ³ IDLH 5.0 mg/m ³	Inhalation (dusts or mists), skin absorption, ingestion, skin and/or eye contact	Irritated eyes, chloracne, liver damage, reproductive effects, potential carcinogen
Benzene	OSHA PEL 1 ppm	Inhalation, skin absorption, ingestion,	Irritated eyes, skin, nose, respiratory system; dizziness;

	Short term: 5 ppm ACGIH PEL 0.5 ppm	skin and/or eye contact	headache, nausea, staggered gait; anorexia, lassitude (weakness, exhaustion); dermatitis; bone marrow depression; [potential occupational carcinogen]
Xylene (m, p, o)	OSHA PEL 100 ppm NIOSH REL 100 ppm Short term: 150 ppm	Inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat; dizziness, excitement, drowsiness, incoordination, staggering gait; corneal vacuolization; anorexia, nausea, vomiting, abdominal pain; dermatitis
Trimethylbenzene (1,2,4 and 1,3,5)	NIOSH REL 25 ppm	Inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, lassitude (weakness, exhaustion), dizziness, nausea, incoordination; vomiting, confusion; chemical pneumonitis (aspiration liquid)
Trichloroethene	OSHA PEL 100 ppm	Inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]
p-Nitroaniline	OSHA PEL 1 ppm NIOSH REL 3 mg/m ³	Inhalation, skin absorption, ingestion, skin	irritation nose, throat; cyanosis, ataxia; tachycardia, tachypnea; dyspnea (breathing difficulty); irritability; vomiting, diarrhea; convulsions; resp arrest; anemia; methemoglobinemia; jaundice
Dinitro-o-cresol	OSHA PEL 0.2 mg/m ³ NIOSH REL 0.2 mg/m ³	Inhalation, skin absorption, ingestion, skin	Sense of well-being; headache, fever, lassitude (weakness, exhaustion), profuse sweating, excess thirst, tachycardia, hyperpnea, cough, short breath, coma
Antimony	NIOSH REL: TWA 0.5 mg/m ³ OSHA PEL: TWA 0.5 mg/m ³	Inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat, mouth; cough; dizziness; headache; nausea, vomiting, diarrhea; stomach cramps; insomnia; anorexia; unable to smell properly
Arsenic	NIOSH REL: 0.002 mg/m ³ (15-minute) OSHA PEL: TWA 0.010	Inhalation, skin absorption, ingestion, skin and/or eye	Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral

	mg/m ³	contact	neuropathy, resp irritation, hyperpigmentation of skin, [potential occupational carcinogen]
Barium Chloride (as Ba)	NIOSH REL: TWA 0.5 mg/m ³ OSHA PEL: TWA 0.5 mg/m ³ Also applies to other soluble barium compounds (as Ba) except Barium sulfate.	Inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, upper respiratory system; skin burns; gastroenteritis; muscle spasm; slow pulse, extrasystoles; hypokalemia
Beryllium & beryllium compounds (as Be)	NIOSH REL: 0.0005 mg/m ³ OSHA PEL: TWA 0.002 mg/m ³ C 0.005 mg/m ³ (30 minutes), with a maximum peak of 0.025 mg/m ³	Inhalation, skin and/or eye contact	Berylliosis (chronic exposure): anorexia, weight loss, lassitude (weakness, exhaustion), chest pain, cough, clubbing of fingers, cyanosis, pulmonary insufficiency; irritation eyes; dermatitis; [potential occupational carcinogen]
Cobalt metal dust and fume (as Co)	NIOSH REL: TWA 0.05 mg/m ³ OSHA PEL: TWA 0.1 mg/m ³	Inhalation, ingestion, skin and/or eye contact	Cough, dyspnea (breathing difficulty), wheezing, decreased pulmonary function; weight loss; dermatitis; diffuse nodular fibrosis; resp hypersensitivity, asthma
Iron oxide dust and fume (as Fe)	NIOSH REL: TWA 5 mg/m ³ OSHA PEL: TWA 10 mg/m ³	Inhalation	Benign pneumoconiosis with X-ray shadows indistinguishable from fibrotic pneumoconiosis (siderosis)
Lead	NIOSH REL: TWA (8-hour) 0.050 mg/m ³ OSHA PEL: TWA 0.050 mg/m ³	Inhalation, ingestion, skin and/or eye contact	lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension
Manganese Compounds	NIOSH REL: TWA 1 mg/m ³ ST 3 mg/m ³ OSHA PEL: 5 mg/m ³	Inhalation, ingestion	Manganism; asthenia, insomnia, mental confusion; metal fume fever: dry throat, cough, chest tightness, dyspnea (breathing difficulty), rales, flu-like fever; low-back pain; vomiting; malaise (vague feeling of discomfort); lassitude (weakness, exhaustion); kidney damage
Mercury Compounds	NIOSH REL: Hg Vapor: TWA 0.05	Inhalation, skin absorption, ingestion,	Irritation eyes, skin; cough, chest pain, dyspnea (breathing

	mg/m ³ Other: C 0.1 mg/m ³ [skin] OSHA PEL: TWA 0.1 mg/m ³	skin and/or eye contact	difficulty), bronchitis, pneumonitis; tremor, insomnia, irritability, indecision, headache, lassitude (weakness, exhaustion); stomatitis, salivation; gastrointestinal disturbance, anorexia, weight loss; proteinuria
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Notes:

IDLH = immediately dangerous to life or health

OSHA = Occupational Safety and Health Administration

ACGIH = American Conference of Governmental Industrial Hygienists

mg/m³ = milligrams per cubic meter

TWA = time-weighted average (Over 8 hrs.)

PEL = permissible exposure limit

TLV = threshold limit value (over 10 hrs)

STEL = short-term exposure limit (15 min)

ppm = parts per million

4.4. SITE PERSONNEL CONTACT INFORMATION

Contact information for Site personnel are presented in the following table:

Contact Name	Organization/Role	Telephone Numbers
Earl Liverman	EPA On-Scene Coordinator	Office: 208.664.4858
Terrance Cundy	Potlatch Project Manger	Office: 208.883.1668 Cell: 208.301.0410
Brandon Miller	Potlatch St Joe District Forester	Office: 208.245.6436 Cell: 208.874.7588
Wilbur Clark	Pacific Pile & Marine, L.P. Project Manager	Office: 206-331-3873 Cell: 206-300-1312
Craig Cearley	Pacific Pile & Marine, L.P. Superintendent	Cell: 206-909-1798
John Herzog	GeoEngineers Technical Project Manager	Office: 206-239-3252 Cell: 206-406-6431
Robert Trahan	GeoEngineers Field Coordinator	Office: 206-239-3253 Cell: 206-240-2300
Abhijit Joshi	GeoEngineers Site Engineer	Office: 206-239-3256 Cell: 425-223-9028
Paul Robinette	GeoEngineers Site Engineer	Office: 253-383-4940 Cell: 253-278-0273

5.0 LIMITATIONS

This previous sections of this HASP provide only a general overview of the Site background, planned activities, and hazards for informational purposes. All Site workers must operate under their individual company-specific Health and Safety plan.

6.0 REFERENCES

E & E (Ecology and Environment, Inc.), "Draft Final Engineering Evaluation /Cost Analysis, Avery Landing Site, Avery, Idaho," prepared for the United States Environmental Protection Agency, Region 10, dated December 2010.

GeoEngineers, Inc., "Draft Removal Action Work Plan, Avery Landing Site, Avery, Idaho" GEI File No. 2315-016-02, prepared for United States Environmental Protection Agency on Behalf of the Potlatch Corporation, dated April 12, 2013.

GeoEngineers, Inc., "Supplemental Site Investigation, Avery Landing Site, Avery, Idaho," GEI File No. 2315-016-01, prepared for Potlatch Forest Holdings, Inc., dated November 9, 2011.

United States Environmental Protection Agency (EPA), "Action Memorandum for the Avery Landing Site Located Near Avery, Shoshone County, Idaho," memorandum to Daniel Opalski, Office of Environmental Cleanup, dated July 5, 2011.

ATTACHMENT D.1
Potlatch Health and Safety Plan

ATTACHMENT D.2
GeoEngineers Health and Safety Plan

ATTACHMENT D.3
Pacific Pile and Marine Health and Safety Plan